

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.:	10/721,725	Art Unit:	2635
Filed:	November 25, 2003	Confirmation No.:	5769
Applicant:	Dorfman, Boris; et al	Examiner:	Disler PAUL
Title:	<b>SYSTEM AND METHOD OF AUDIO TESTING OF ACOUSTIC DEVICES</b>		
Docket No.:	42783-0118	Customer No.:	23577

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To: U.S. Patent and Trademark Office  
Mail Stop Amendment  
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P.O. Box 1450  
Alexandria, VA 22313-1450  
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**Interview Summary**

This is a summary of the telephone interview with the Examiner Paul Disler and the Examiner's supervisor Vivian Chin conducted on May 21, 2008 from approximately 2:15 pm to 2:45 pm.

The Applicant's representative explained the overall invention and the differences over the primary reference of LaMedica Jr. (U.S. Patent No. 7,024,161 A1) and the other references. In particular, the Applicant's representative explained that the claimed invention is not merely LaMedica Jr. with a different test signal as suggested by the Examiner. As a matter of background, the Applicant's representative also repeated the distinction mentioned in the Applicant's response to the second Office Action dated June 15, 2007, that an electric audio signal is different than an acoustic audio signal - both of which are referred to in the claims. An electric audio signal is an inaudible electric signal which represents an acoustic audio signal. An electric audio signal is converted to an acoustic audio signal via an electric-to-acoustic transducer in a speaker. Conversely, an acoustic audio signal is converted to an electric audio signal via an acoustic-to-electric transducer in a microphone.

In addition, in relation to claims 1 and 23 the Applicant's representative reiterated the remarks in the most recent response dated March 28, 2008, that:

- (1) Claims 1 and 23 relate to the testing of the built-in microphone of the mobile communication device using an external speaker and audio generator. The audio generator generates microphone test signals which are transmitted and reproduced via the external speaker, the reproduction being picked up by the built-in microphone, the electric audio signal output from the built-in microphone being routed to the auxiliary I/O of the mobile communication device where it is output to an external test system for analysis;
- (2) LaMedica, Jr. does not suggest audio testing which involves the testing for the proper operation of the built-in microphone and/or speaker themselves - only the testing of software application such as voice activation features which use audio data;
- (3) LaMedica, Jr. does not describe, nor suggest routing an electric audio output signal from the built-in microphone to the auxiliary I/O port via the processor so that the output signal may be output to an external test system;
- (4) LaMedica, Jr. does not describe nor suggest a software module stored in memory which configures the microprocessor to route signals from the microphone to the auxiliary I/O port; and
- (5) Bakis (U.S. Patent No. 5,822,718) is directed to testing standalone microphones and unrelated to testing the built-in microphone of a mobile device, and does not describe nor suggest the above features.

In addition, in relation to claims 14 and 31 the Applicant's representative reiterated the remarks in the most recent response dated March 28, 2008, that:

- (1) Claims 14 and 31 relate to the testing of the built-in speaker of the mobile communication device using an audio generator which generates speaker test signals. The audio generator generates speaker test signals in electric form which are input to the mobile communication device via its auxiliary I/O port and reproduced via the built-in speaker. The reproduction of the speaker test signal is then picked up by an external microphone, the output of which is sent to an external test system where it is analyzed;
- (2) LaMedica, Jr. does not suggest audio testing which involves the testing for the proper operation of the built-in microphone and/or speaker themselves - only the testing of software application such as voice activation features which use audio data;
- (3) LaMedica, Jr. does not describe, nor suggest routing an electric audio test signal from the auxiliary I/O port to the built-in speaker via the processor for reproduction;
- (4) LaMedica, Jr. does not describe nor suggest a software module stored in memory which configures the microprocessor to route signals from the auxiliary input/output device to the speaker; and
- (5) Konetski et al. (U.S. Patent No. 7,006,637) is directed to a speaker with a self-diagnosis circuit which uses a speaker test signal but is unrelated to testing the built-in speaker of a mobile communication device. While speaker test signals and output signals using the self-diagnostic circuit are described at column 5 and elsewhere, Konetski et al. does not describe the input of speaker test signals in electric form from an external test system via auxiliary I/O port, routing this signal to the speaker, and picking up the resultant output of the built-in speaker via an external microphone. Thus, Konetski et al. does not cure the deficiencies of LaMedica, Jr.

As discussed in the telephone interview, the Applicant does not believe that the nature of the test signals or nature of the analysis performed by the external test system are necessary limitations required to distinguish the claimed invention from the prior art.

At the end of the telephone interview, no agreement was reached although Ms. Chin appeared to acknowledge that there were differences between the claimed invention and the prior art. Ms. Chin suggested that clarifying amendments may be needed, but no amendments were proposed. Upon discussion of the areas of concern, it appears as though the suggestion regarding clarifying amendments may be due to some confusion concerning the differences between the terms *electric* audio signal and *acoustic* audio signal used in the claims. If any clarifying amendments would advance the prosecution of the application, the Applicant would be pleased to discuss such amendments with the Examiner. The Applicant's representative can be reached at (416) 865-3508.

At the conclusion of the telephone interview, Mr. Disler and Ms. Chin indicated that an updated search would be performed in respect of the clarifying amendments made in the Applicant's last reply, and that Mr. Disler would consider the issues discussed in the telephone interview and Applicant's last reply.

Favourable reconsideration and allowance of the application are respectfully requested.

Respectfully submitted,

**RIDOUT & MAYBEE LLP**

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